

## A Redescription of *Leptaulax arrowi* (Coleoptera, Passalidae) Based on the Holotype

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**Abstract** *Leptaulax arrowi* HINCKS is redescribed based on the holotype and compared with *L. uenoi* IWASE, which appears to be most closely related to *L. arrowi*. It is also briefly discussed on the exact position of the type locality of *L. arrowi*.

*Leptaulax arrowi* was described by HINCKS (1933) from Mt. Balis based on the unique holotype. Up to the present, no additional specimen has been known. Furthermore, it has not been clear in which area is the type locality of *L. arrowi*, Mt. Balis.

Recently, we have had an opportunity to examine the holotype of *Leptaulax arrowi* HINCKS preserved in the collection of the Manchester Museum. Thus, we here-with redescribe it based on the holotype and compare it with the known members of this genus based on specimens or literature. In the following redescription, we adopt the terminology of GRAVELY (1914) and IWASE (1996).

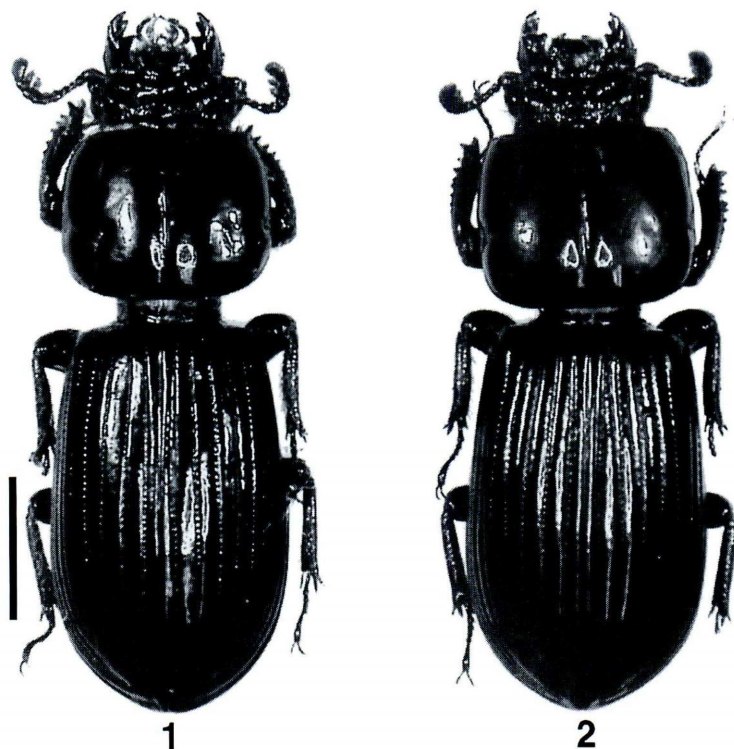
### *Leptaulax arrowi* HINCKS

(Figs. 1, 3)

*Leptaulax arrowi* HINCKS, 1933, Entomologist's month. Mag., **69**, p. 12.

*Redescription of the holotype.* Female. Length from anterior margin of head to apices of elytra 24.3 mm. Body polished, black, convex, ratio of prothorax thickness to pronotum width 0.62.

Inner marginal tubercle triangular, larger and much more prominent forwards than outer one, with apex rounded; distance between inner tubercles more than twice as long as that between inner and outer ones; outer marginal tubercle triangular, pointed forwards and a little outwards; ridge between inner tubercles slightly swollen at the



Figs. 1–2. Habitus of *Leptaulax* spp., scale 5 mm. — 1, *L. arrowi*, holotype (female); 2, *L. uenoi*, paratype (male).

middle. Canthus with anterior angle weakly produced laterally, without ridge on upper surface. Eye small, not projecting laterally beyond canthus. Frontal area almost rectangular, much wider than long, with a few hair-bearing punctures, without median keel; area behind outer tubercle impunctate and hairless; depressed area prior to parietal ridge with a few hairs in outer portion, impunctate and hairless in inner portion; area behind parietal ridge with hair-bearing punctures; frontal ridge almost transverse in proximal portion, turning towards inner tubercle at right-angle in distal portion, with weak tubercle at the turning point; parietal ridge gently curved, extending to supraorbital ridge. Outer margin of mandible with obtuse angle near base; upper margin swollen behind upper tooth; upper inner surface without punctures; upper tooth obtuse-angled; anterior lower tooth triangular, larger than lowest terminal tooth. Labrum punctured and hairy, almost symmetric, anterior margin straight. Labium without median ridge, with anterior margin rounded. Mentum polished, with setiferous punctures in lateral portion, impunctate and hairless in central portion, with a scar like a semicircular arch opening forwards between central and lateral portions; anterior margin convex forwards in central portion. Hypostomal process hairless, with a longitudinal groove,

mat in the groove, lateral margins convergent anteriad. Antenna with three short lamellae; upper surface of scape mat.

Pronotum convex, median sulcus distinct, with a few hairs in scar, anterior and posterior angles rounded. Prosternum impunctate and hairless in posterior plate, with some hairs in middle portion between procoxae. Mesothoracic episternum mat; mesosternum smooth and impunctate in central portion, with hair-bearing punctures at the middle of lateral portion, hairless and rugged in postero-lateral portion. Central area of metasternum polished, impunctate; anterior intermediate area punctured and hairy; posterior intermediate area punctured in inner portion, more sparsely in outer portion; lateral area rough, hairless, narrow, slightly widened posteriad. Elytra united, convex, widened posteriad, rounded and hairy at humerus, simply punctured in all striae, polished in all ribs. Upper surfaces of middle and hind tibiae mat, densely punctured and hairy. Abdominal sternites hairless.

*Specimen examined.* Holotype: female, attached with the labels: "Mt. Balis", "5073", "Ex Staudinger & Bang, Dresden", "Manchester Museum Holotype", "Holotype *Leptaulax arrowi* Hincks, 1933".

*Distribution.* Mt. Balis.

*Specimens compared.* *Leptaulax uenoi* IWASE: 1 male (holotype), Banaue, Ifugao, Luzon, V-1988; 1 male (paratype), the same data as for the holotype. *L. sambawae* GRAVELY: 1 male, Sumbawa, VIII-1999.

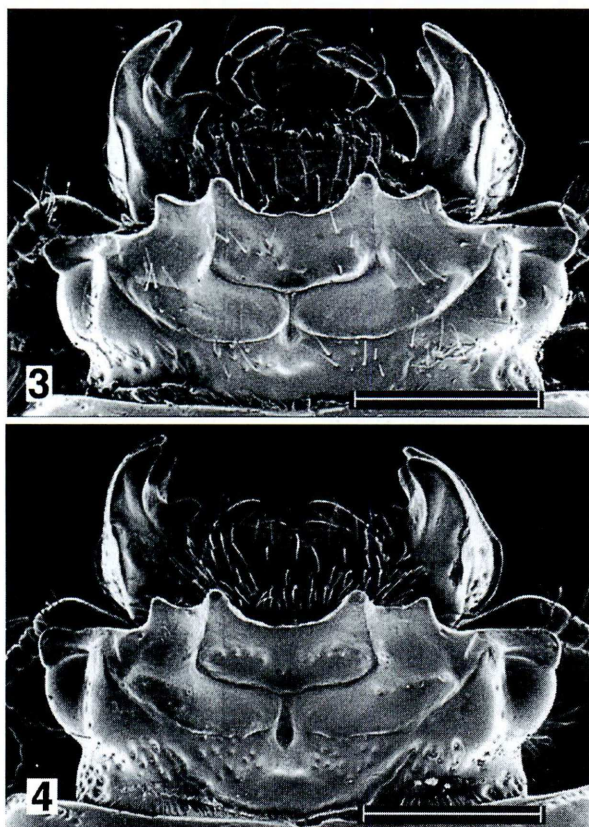
## Discussion

HINCKS (1933) noted that *Leptaulax arrowi* appeared to be closely related to *L. sambawae* GRAVELY. However, based on the examination of the holotype of *L. arrowi*, it was revealed that *L. arrowi* is not so similar to *L. sambawae*; the former is diagnosed by the following characters: the body convex (the ratio of prothorax thickness to pronotum width, 0.62); the elytra united, rounded at the humerus, whereas in *L. sambawae*, the body rather flat (the ratio of prothorax thickness to pronotum width, 0.58); the elytra not united, angular at the humerus. In contrast, *L. arrowi* appears to be most closely related to *L. uenoi* IWASE from Luzon, the Philippines, which shares all the aforementioned diagnostic characters with *L. arrowi* but is slightly different from *L. arrowi* in the following points: the ridge between inner tubercles not swollen at the middle; the pronotum somewhat larger and less rounded at the angles (Figs. 1-4).

The holotype of *Leptaulax arrowi* bears the label, "Mt. Balis". It has been unknown where is Mt. Balis, although HINCKS (1933) suggested that it was possibly from Bali Island. He also noted that the holotype of this species was found in a box including *Leptaulax* species chiefly from the Philippines and New Guinea. As mentioned above, *L. arrowi* resembles *L. uenoi* from the Philippines most closely. Thus, we suggest another possibility that the type locality of *L. arrowi* may be somewhere in the Philippines.

It is hoped to obtain additional specimens (especially the male) of *Leptaulax ar-*





Figs. 3–4. Head of *Leptaulax* spp. in dorsal view, scale 2 mm. — 3, *L. arrowi*, holotype (female); 4, *L. uenoi*, paratype (male).

*rowi* for determining the exact area in which lies its type locality.

### Acknowledgments

We thank Drs. D. V. LOGUNOV and C. JOHNSON of the Manchester Museum for giving us the opportunity to examine the holotype of *Leptaulax arrowi* on loan. Thanks are also due to Drs. S. NOMURA and S.-I. UENO of the National Science Museum (Natural History), Tokyo and Mr. M. FUJIOKA of Tokyo for giving us the opportunities to examine the type specimens of *L. uenoi*. This study was supported in part by a Grant-in-Aid from the Japan Society for the Promotion of Science (No. 14405013).

### 要 約

近 雅博・常喜 豊：ヒラタクロツヤムシの一種 *Leptaulax arrowi* のホロタイプにもとづく再

記載. — ヒラタクロツヤムシの一種 *Leptaulax arrowi* をホロタイプにもとづいて再記載し、もっとも近縁と思われる *L. uenoi* と比較した。また、*L. arrowi* のタイプ・ローカリティの Mt. Balis の場所について論議した。

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## New Record of *Paranaspia frainii* (FAIRMAIRE) from Northeast Laos

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*Paranaspia frainii* was first described by FAIRMAIRE (1897) as a species of the genus *Strangalia* from Sikkim and British Bhutan, and was transferred to the genus *Paranaspia* by HAYASHI and VILLIERS (1985). The latter authors also synonymized *Leptura reductipennis* PIC, which was described from Yunnan, China, with *Paranaspia frainii*.

I found several specimens which are identical with *P. frainii* in the collection of our survey on Mt. Phu Pan in Houapan Province of northeastern Laos. A close examination of the genitalia of this species showed a structure quite similar to that of other congeners (cf. OHBAYASHI, 2001). As the result, it is concluded that the species actually belongs to the genus *Paranaspia* though it has rather heterogeneous appearance when compared with the others. Here I newly record this species from Laos and illustrate the structure of male genitalia for the first time.

I thank Dr. Tatsuya NIISATO for his kind offer of valuable specimens.

*Specimens examined.* 1 female, Mt. Phu Pan, Xam Neua, Houapan Province, Laos, alt. 1,500–1,800 m, 1–V–2002, N. OHBAYASHI leg.; 4 males, same locality, 16–IV~15–V–2004, native collector.